

WHAT IS CLAIMED IS:

1. A wireless communication device for performing wireless communication with a master station, comprising:

an image encoding unit for encoding image acquired
5 by a camera to obtain image data of instructed quality;

wireless communication means for transmitting, by wireless, the image encoded by said image encoding unit to the master station;

wireless communication state judging means for
10 judging a state of the wireless communication with the master station;

image quality decision means for determining quality of image to be encoded by said image encoding unit, in accordance with the wireless communication state; and

15 image quality instruction means for instructing said image encoding unit to encode the image with the quality determined by said image quality decision means.

2. The wireless communication device according to
20 claim 1, further comprising processing load measurement means for measuring processing load imposed on said wireless communication means,

wherein said image quality decision means determines quality of image to be encoded by said image
25 encoding unit, in accordance with the processing load on said wireless communication means and the wireless communication state.

3. The wireless communication device according to claim 2, wherein said image quality decision means determines an image quality with higher data compression ratio, out of an image quality matching the processing load on said wireless communication means and an image quality matching the wireless communication state, as the quality of image to be encoded by said image encoding unit.

4. The wireless communication device according to claim 1, wherein said wireless communication state judging means judges the wireless communication state on the basis of a receive level of a predetermined signal transmitted from the master station.

5. The wireless communication device according to claim 4, wherein said predetermined signal is a beacon signal.

6. The wireless communication device according to claim 1, wherein said image quality decision means predicts a future communication state on the basis of the wireless communication state and determines the image quality in accordance with the predicted communication state.

7. The wireless communication device according to claim 1, wherein said wireless communication state judging

means detects error of a predetermined signal transmitted from the master station, and judges the wireless communication state on the basis of occurrence of the error.

5 8. A wireless communication device for performing wireless communication with a master station, comprising:

 an image encoding unit for encoding image acquired by a camera to obtain image data of instructed quality;

 wireless communication means for transmitting, by
10 wireless, the image encoded by said image encoding unit to the master station;

 processing load measurement means for measuring processing load imposed on said wireless communication means;

15 image quality decision means for determining quality of image to be encoded by said image encoding unit, in accordance with the processing load measured by said processing load measurement means; and

 image quality instruction means for instructing
20 said image encoding unit to encode the image with the quality determined by said image quality decision means.

 9. A wireless communication method for performing wireless communication with a master station, comprising the
25 steps of:

 judging, by wireless communication state judging means, a state of the wireless communication with the master

station;

determining, by image quality decision means, quality of image to be encoded by an image encoding unit, in accordance with the wireless communication state;

5 instructing, by image quality instruction means, encoding of image with the quality determined by the image quality decision means;

 encoding, by the image encoding unit, image acquired by a camera to obtain image data of the quality
10 instructed by the image quality instruction means; and

 transmitting, by wireless communication means, the image encoded by the image encoding unit to the master station by wireless.

15 10. A wireless communication program for performing wireless communication with a master station, wherein said wireless communication program causes a computer to function as:

 wireless communication means for transmitting
20 image encoded by an image encoding unit which encodes image acquired by a camera to obtain image data of instructed quality, to the master station by wireless;

 wireless communication state judging means for judging a state of the wireless communication with the
25 master station;

 image quality decision means for determining quality of image to be encoded by the image encoding unit,

in accordance with the wireless communication state; and

image quality instruction means for instructing the image encoding unit to encode the image with the quality determined by the image quality decision means.

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11. A computer-readable recording medium recording a wireless communication program for performing wireless communication with a master station, wherein the wireless communication program causes a computer to function

10 as:

wireless communication means for transmitting image encoded by an image encoding unit which encodes image acquired by a camera to obtain image data of instructed quality, to the master station by wireless;

15 wireless communication state judging means for judging a state of the wireless communication with the master station;

image quality decision means for determining quality of image to be encoded by the image encoding unit, in accordance with the wireless communication state; and

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image quality instruction means for instructing the image encoding unit to encode the image with the quality determined by the image quality decision means.